

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: John W. Linebarger et al.

Confirmation No.: 9876

Application No.: 10/020,062

Group No.: 2616

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Examiner: Thai D. Hoang

For: SYSTEM & METHOD FOR SELECTING SPECTRUM

Mailstop: Appeal Brief - Patents

Commissioner for Patents

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REPLY BRIEF IN RESPONSE TO EXAMINER'S ANSWER

Introductory Comments

In response to the Examiner's answer dated February 6, 2007 (hereinafter "Examiner's answer"), please consider the following remarks.

Remarks

Claims 1-28 and 41-56 currently remain pending. Claims 29-40 were previously withdrawn in response to a restriction requirement. Claims 1-12, 14, 15, 18-20, 22-28, 41-50 and 52-55 stand rejected. Claims 13, 16, 17, 21 and 51 stand objected to. Claim 56 is allowed. No claims are amended herein. The Applicant respectfully requests that the Board of Patent Appeals and Interferences (hereinafter “the Board”) reverse the final rejection of claims 1-12, 14, 15, 18-20, 22-28, 41-50 and 52-55.

In the “Response to Argument” section on pages 8-11 of the Examiner’s answer, several arguments are presented in response to the appeal brief of September 13, 2006 (hereinafter “the appeal brief”). Each of these arguments is addressed in turn below:

Separate Licensed Spectrum and Unlicensed Spectrum Transceivers

The Examiner’s answer disagrees with the assertion in the appeal brief that Smith only provides for a single transmitter and a single receiver, each of which is capable of switching between narrowband and spread-spectrum modes, unlike the separate licensed spectrum transceiver and unlicensed spectrum transceiver of claims 1 and 41. (Page 9 of the Examiner’s answer.) More specifically, the Examiner’s answer looks to Figs. 2, 3 and 8 for support for the allegation that the narrowband modulator 113 of Fig. 2 and the narrowband demodulator 213 of Fig. 3 constitute an unlicensed spectrum transceiver, while the spectrum modulator 111 of Fig. 2 and the spread spectrum despreader circuit 215 of Fig. 3 constitute a licensed spectrum transceiver. (Page 9 of the Examiner’s answer.)

The Applicant respectfully disagrees. As noted at pages 5-7 of the appeal brief, the fact that several components of each of the Smith transmitter and receiver *share components* normally found in a transmitter or receiver, such as the RF power amplifier 115, the adjustable bandpass filter 117, the tunable bandpass filter 117, and the preamplifier 203 of Figs. 2 and 3, the Smith transmitter does not represent separate narrowband and spread-spectrum transmitters, but is instead a dual-mode transmitter. Similarly, the Smith receiver is a singular dual-mode receiver, not separate narrowband and spread-spectrum receivers. Thus, the Applicant respectfully contends that the Smith transmitter and receiver do not teach or suggest both a licensed spectrum transceiver and an unlicensed spectrum transceiver, as set forth in claims 1

and 41.

The Examiner's answer further indicates that "claims 1 and 41 did not recite any limitation that indicates the licensed transceiver and the unlicensed transceiver are separate transceivers." (Page 9 of the Examiner's answer.) The Applicant again respectfully disagrees. Claim 1 specifically sets forth separate limitations for "a licensed spectrum transceiver" and "an unlicensed spectrum transceiver." Further, claim 1 recites "a spectrum selector configured to *select the licensed transceiver or the unlicensed transceiver* for communication." (Emphasis supplied.) Thus, the language of claim 1 indicates that the spectrum selector selects between the two *transceivers* for communication, and not just between different spectra. Thus, claim 1 does indeed recite limitations indicating that the licensed transceiver and the unlicensed transceiver are separate transceivers. Claim 41 provides similar limitations.

Narrowband and Spread-Spectrum Communication vs. Licensed and Unlicensed Spectra

The Examiner's answer takes issue with the contention presented in the appeal brief that the two modes of narrowband and spread-spectrum in which its transmitter and receiver operate do not correspond with "licensed spectrum" and "unlicensed spectrum," as provided for in claims 1 and 41. For support, the Examiner's answer states that "figure 8 [] shows a dual mode handset phone 410 may operation in both licensed spectrum 400 and unlicensed spectrum 405." (Page 10 of the Examiner's answer.) However, as is shown in great detail in both Smith and in the Examiner's answer, *both* the narrowband and spread-spectrum transmitter, as well as their corresponding receivers, may operate in *either* licensed or unlicensed spectrum. (Page 10 of the Examiner's answer.) As a result, the Applicant respectfully contends that Smith does not teach or suggest "a licensed spectrum transceiver" and "an unlicensed spectrum transceiver," as provided for in claims 1 and 41.

Spectrum Selector

Similarly, in response to assertions in the appeal brief that the Smith mode controller 103 of Figs. 2 and 3 selects between narrowband and spread-spectrum modes in both the transmitter and receiver of Smith, the Examiner's answer alleges that "the mode controller 103 controls a mode select[] switch 104 [that] switches to operate in licensed frequency bands or unlicensed frequency bands." (Page 11 of the final Office action.) The Applicant respectfully disagrees, as

Smith teaches by way of Figs. 2 and 3 that the mode controller 103 operates through the mode select switch 104 to switch between narrowband and spread spectrum communication. (See switch 104 coupled with narrowband modulator 113 and spread-spectrum modulator 111 in Fig. 2, and with narrowband demodulator 213 and spread spectrum despreader 215 in Fig. 3. See also column 6, lines 52-55, and column 7, lines 37-39.) Apparently, whether a particular communication of Smith engages in communication via licensed or unlicensed spectrum is of no importance regarding the operation of the Smith mode controller 103; the state of the controller 103 and the mode select switch 104 depends upon whether the communication is of the narrowband or spread-spectrum type. Thus, the Applicant respectfully contends that the mode controller of Smith does not teach or suggest the spectrum selector of claims 1 and 41, which is “configured to *select the licensed transceiver or the unlicensed transceiver* for communication.” (Emphasis supplied.)

Thus, on the basis of the foregoing, the Applicant respectfully asserts that independent claims 1 and 41 are allowable in view of Smith, and such indication is respectfully requested.

Also, claims 2-10 and 23-28 depend from independent claim 1, and claims 42-48 and 55 depend from independent claim 41, thus incorporating the provisions of their associated independent claims. Thus, the Applicant contends that claims 2-10, 23-28, 42-48 and 55 are allowable for at least the reasons provided above in support of claims 1 and 41, and such indication is respectfully requested.

Therefore, in light of the discussion presented above, the Applicant respectfully requests reversal of the 35 U.S.C. § 102 rejection of claims 1-10, 23-28, 41-48 and 55.

Claims 11, 12, 14, 15, 18-20 and 22 depend from independent claim 1, and claims 49, 50 and 52-54 depend from independent claim 41, thus incorporating the provisions of their associated independent claims. Thus, the Applicant asserts that claims 11, 12, 14, 15, 18-20, 22, 49, 50 and 52-54 are allowable for at least the reasons presented above in support of claims 1 and 41, and such indication is respectfully requested.

Thus, the Applicant respectfully requests that the 35 U.S.C. § 103 rejections of claims 11, 12, 14, 15, 18-20, 22, 49, 50 and 52-54 be reversed as well.

Conclusion

Based upon the above remarks, the Applicant submits that claims 1-28 and 41-56 are allowable. Additional reasons in support of patentability exist, but such reasons are omitted in the interest of clarity and brevity. The Applicant thus respectfully requests reversal of the rejections of claims 1-12, 14, 15, 18-20, 22-28, 41-50 and 52-55.

The Applicant believes no fees are due with respect to this filing. However, should the Office determine additional fees are necessary, the Office is hereby authorized to charge Deposit Account No. 21-0765 accordingly.

Respectfully submitted,

/kyle j way/

SIGNATURE OF PRACTITIONER

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